

The author of *P.Oxy. LXXXIII 5349* as a reader of Empedocles

The recently published papyrus *P.Oxy. LXXXIII 5349* (2nd c. A.D.) offers ten rather broken hexameters, ostensibly on an astronomical subject. There are no obvious traces of other hallmarks of didactic poetry (e.g. an addressee), yet the *editor princeps* rightly calls attention to phrases reminiscent of Aratus, alongside other hexameter authors.¹ Conspicuous by his absence among these references is Empedocles, whose influence on later writers of didactic (and other) poetry is increasingly well-understood.²

A line of particular importance here is l. 5:

ἔται νοτιο ... [σ]τροφάλιγγι φορεῖται

The editor compares Aratus 43, μειοτέρη γὰρ πᾶσα περιστρέφεται στροφάλιγγι. Yet a still closer comparandum is Empedocles B35.4 D.-K.:

δίνης, ἐν δὲ μέσῃ Φιλότης στροφάλιγγι γένηται.

This line provides a model for *P.Oxy. 5349* with στροφάλιγγι in the correct *sedes*. This would seem slim basis for positing an intertextual relationship were it not that Empedocles seems to have been fond of this position for the word. A version of the line is also found on the Strasbourg Papyrus, **a(ii)19** = *Physika* 1. 289, which I quote (leaving the very end of the line unrestored):

δ[ίνη]ς, ἐν δὲ μέσ[ῃ] Φ[ιλ]ότης στροφά[λιγγι u – x

Perhaps even two swallows do not make a summer (after all, Homer himself already had στροφάλιγγι in this position, see *Il.* 16.775, 21.503); nevertheless the parallel is worth adding given the didactic style of the verse. The simplest conclusion, then, is that *P.Oxy. 5349* was written by a poet who read widely in earlier didactic, and that Empedocles was a writer available to him, perhaps in full but certainly in excerpt. The new papyrus joins evidence for the increasingly richly researched *Nachleben* of Empedocles. And there, in principle, one could leave it.

For the daring, however, the Oxyrhynchus papyrus can be used for other ends. If our anonymous didactic poet wrote στροφάλιγγι φορεῖται, one might speculate that this is because an earlier poet wrote it too. Since Martin-Primavesi's edition, **a(ii)19** has always been restored on the basis of B35, and has therefore ended in γένηται. But Empedocles is not always so inflexible in his use of formulae.³ We might consider, in the light of *P.Oxy. 5349*, that Empedocles varied his formulae in this case, and that the Strasbourg Papyrus should be restored with στροφά[λιγγι φορῆται]. In that case, our anonymous hexameter poet would be referring directly to a passage of the *Physika*. Since this passage is not known from the indirect tradition available to us, but only from the Strasbourg papyrus, this could be an indication that the poet of *P.Oxy. 5349* knew at least Book 1 of the *Physika* as a whole, rather

¹ See Reinfelder (2018). The papyrus is re-edited by Perale (2020) no. 10. I am grateful to Marco Perale (Liverpool) for generously sharing his work on these papyri in advance of publication; see further n.22.

² See in general Sedley (1998); Garani (2007); more wide-ranging and with full bibliography, Hardie (2017). A full study of Empedocles' influence on later Greek texts such as Oppian and the *Orphic Lapidary* is still a desideratum.

³ Primavesi / Patzer (2001) 5: 'Wenn man die Empedokleischen Verswiederholungen insgesamt durchmustert, dann zeigt sich, daß sie konsequent kleinere oder größere *Variationen* aufweisen' (emphasis in original).

than relying on excerpts; but plainly it is also possible for quotations to lose their currency, so this can be no more than a hint in that direction rather than proof.

A still bolder step is that γένηται in Simplicius (our only source for B35.4, albeit in two places, *in Cael.* 528.30 and *in Phys.* 32.13) is itself based on a text with an accidental banalisation. In other words, a form of the verb φορέω is the original reading, which a copyist antecedent to Simplicius has replaced with a less colourful verb.⁴ The proposal to read a form of φορέω here is consequently not an emendation of Empedocles, but a restitution based on the evidence of a later imitation. This is supported by a wider consideration of Empedoclean phraseology. We can begin with a look at B35.3-6 D.-K.:

ἐπεὶ Νεῖκος μὲν ἐνέρτατον ἵκετο βένθος
δίνης, ἐν δὲ μέσῃ Φιλότης στροφάλιγγι γένηται,
ἐν τῇ δὴ τάδε πάντα συνέρχεται ἐν μόνον εἶναι,
οὐκ ἄφαρ, ἀλλὰ θελημὰ συνιστάμεν' ἄλλοθεν ἄλλα.

‘When Strife reached the lowest depth of the vortex, and Love is in the middle of the whirl, then all these things come together to be just one, not at once, but willingly coming together from different directions.’

For the moment, I translate following the Simplician text; I note however that Wright’s translation reads ‘when love comes into the middle of the eddy’.⁵ In other words, Wright’s translation κατὰ σύνεσιν already fits rather better with (say) φορῆται than γένηται. Other translations include Graham, ‘and Love comes to be in the middle of the vortex’,⁶ and Laks / Most, who render ‘Love has come to be in the center of the whirl’.⁷ This version raises a second salient point about a difficulty in text as offered by Simplicius – why would Empedocles talk of Love ‘coming to be’? The notion is extremely uncomfortable given the rejection of ‘coming to be’ elsewhere in the system (B12 D.-K.) and the explicit reframing of ‘coming to be’ in other physical terms (B8 D.-K.). Nowhere else are either Love or Strife said to γίνεσθαι. Of course, a poet like Empedocles does not always need to be absolutely rigorous in his technical vocabulary;⁸ still, the contradiction is perhaps stark enough at least to give us pause. Furthermore, γένηται has long been suspected on other, namely syntactic, grounds,⁹ as the conjunction ἐπεὶ is used first with an indicative (ἵκετο) in the previous line, before the subjunctive γένηται.¹⁰ Among proposals to correct this anomalous distribution of

⁴ The reason I think it must be a copyist earlier than Simplicius is that he quotes the same passage twice in the same form. It is possible that Simplicius himself made the error when excerpting the text; the fact that his paraphrase of the passage reflects B35.4 as ὅταν γένηται (*in Cael.* 529. 17-18) is some corroboration in support of this. For Simplicius’ detailed knowledge of the poem, see O’Brien (1969) 151.

⁵ Wright (1995) 206.

⁶ Graham (2010) 361.

⁷ Laks / Most (2016) 425.

⁸ The objection that ‘coming into existence’ is not the same as ‘coming to be positioned in the centre of a vortex’ introduces a distinction (between the existential and predicative verb) that I do not think is salient in Greek philosophical thought of this period.

⁹ Martin / Primavesi (1999) 219-220 give a survey of proposals.

¹⁰ No edition of Empedocles later than Diels / Kranz gives any indication whatsoever that there is a problem in this line, or that textual critics have made suggestions about it, and even Diels / Kranz only record Wilamowitz’ suggestion (γέγακε). There is still room for an edition of Empedocles founded on a full study of the scholarly tradition. Munding (1954) 144 n.4 declares himself content with the anacolouthon, thus also Wright (1995) 207, who calls the subjunctive ‘probably acceptable’.

moods, van Groningen's is perhaps most interesting, as he reverses the order of the words in order to restore the aorist indicative to the second clause: γένετο στροφάλιγγι.¹¹ In other words, van Groningen's proposal aligns Empedocles with the passage of Aratus quoted already above (not that van Groningen chooses to argue the case in these terms). To emend the line in accordance with *P.Oxy.* 5349 is no more extraordinary. And in fact our form supplies an easy correction for the syntactic difficulty also: we can read στροφάλιγγι φορεῖτο, satisfying both intertextual, syntactic, and doctrinal requirements. While the mistake presupposed by van Groningen requires two errors (or rather one error followed by a 'correction'), the change from φορεῖτο to γένηται requires only a single banalisation. The translation reflects a slightly different reading of the fragment:

ἐπεὶ Νεῖκος μὲν ἐνέρτατον ἵκετο βένθος
δίνης, ἐν δὲ μέσῃ Φιλότης στροφάλιγγι φορεῖτο,
ἐν τῇ δὴ τάδε πάντα συνέρχεται ἐν μόνον εἶναι,
οὐκ ἄφαρ, ἀλλὰ θελημὰ συνιστάμεν' ἄλλοθεν ἄλλα.

'When Strife had reached the lowest depth of the vortex, and Love was just moving in the middle of the whirl, then all these things came together to be one, not at once, but willingly coming together from different directions'

The replacement of φορεῖτο by γένηται may well have been aided by the lack of augment in the secondary form.¹² Primavesi / Patzer argue that the present tense of the main clause points towards the use with the subjunctive; but this fails to take account of the fact that the verb in line 5 must be historic present, since the rest of the verbs in the passage are all past tense. This may be because Empedocles is describing what he has already narrated. Consequently, the historic tenses in the subordinate clause fit perfectly in B35.¹³ The change from aorist ἵκετο to imperfect φορεῖτο fits well also, since Strife has completed its cycle just as Love sets its own into motion.¹⁴

The syntactic context of the Strasbourg Papyrus is less clear, since the passage is more fragmentary, and the verb in the first clause is likewise restored. As a result, it is hard to check what kind of syntactic context we really expect. This time I quote the lines with my proposed restitution:

[ἀλλ' ὅτ]ε δὴ Νεῖκος [μὲν ὑ]περβατὰ βέν[θε' ἵκηται]¹⁵
δ[ίνης], ἐν δὲ μέσ[ῃ] Φ[ιλ]ότης στροφά[λιγγι φορῆται]
ἐν [τῇ] δὴ τάδε πάντα συνέρχεται ἐν [μόνον εἶναι.]

¹¹ Van Groningen (1958) 216 n.2; the footnotes of this chapter brim with textual suggestions which merit more consideration.

¹² Empedocles seems to be relatively consistent in using the augment but besides ambiguous cases (B35.8, B35.14, B54, B89, B96.3, etc.) are some definite examples of unaugmented forms (B30.2, B31, B75.1, B96.2, etc.), discounting verbs in -εσκ- (e.g. B59.1, 5, B84.8, etc.) which in Ionic were not augmented (see Rosén 1962, 124).

¹³ Primavesi / Patzer (2001) 3.

¹⁴ A didactic note: the passage thence becomes a beautiful illustration of how the imperfect, marking the imperfective aspect or extension in time, can on occasion look like an 'inceptive' or 'inchoative' form.

¹⁵ Perhaps ὑπερβαθὺ βένθος ἵκηται, with Primavesi / Patzer (2001); Primavesi (2011) 466 restores the Strasbourg Papyrus as [ἀνυ]περβατὰ βένθ[ε' ἵκηται], and at 474 emends B35.3 as ἐνέρτατα βένθε' ἵκηται.

With some trepidation, and in particular since it comes almost immediately before what has been identified as the ‘table of contents’ of the poem,¹⁶ this seems to be a general statement; as a result, *συνέρχεται* is a genuine present tense, and the subjunctives are a more likely reconstruction. The restitution proposed here thus reconstructs a slightly different text in B35 and in the Strasbourg Papyrus. This is, I suggest, in keeping with Empedocles’ practice elsewhere.

The restitution of *φορεῖτο* and *φορῆται* here has the disadvantage that it is a much more drastic change. The use of the verb in this passage may however be made more palatable if we consider the wider role the verb plays in Empedocles. The verb *φορέω* is attested twice in Empedocles, and its usage is an interesting counterpoint to the restitution here proposed.¹⁷ On both occasions, the verb is used in parallel with *συνέρχομαι*:

ἄλλοτε μὲν φιλότῃτι συνερχόμεν’ εἰς ἓν ἅπαντα,
ἄλλοτε δ’ αὖ δίχ’ ἕκαστα φορεύμενα νείκεος ἔχθει. (B17. 7-8, *Physika* 1.239-240)

ἄλλοτε μὲν φιλότῃτι συνερχόμεν’ εἰς ἓνα κόσμον,
ἄλλοτε δ’ αὖ δίχ’ ἕκαστα φορεύμενα νείκεος ἔχθει. (B26. 5-6)

Whether the variation between these two lines (*εἰς ἓν ἅπαντα*, *εἰς ἓνα κόσμον*) is significant or not is irrelevant for our purposes here. The pairing of *φορέω* with *συνέρχομαι* is the vital clue. Now these lines summarise the actions, respectively of Love – by which the elements come together and mix – and of Strife – by which the elements separate.

The question then is in what sense the elements can be said to separate. According to one view, the elements are separated into different zones or masses according to a principle of like-to-like.¹⁸ Trépanier however has argued that this is a doxographical figment, and that in reality the elements remain among each other, but unable to combine into compounds. Love and Strife then represent different levels of ability to combine (almost valencies in modern chemical parlance), rather than spatial separation of each element from the other.¹⁹ It might then follow that what really distinguishes the cosmos under Love and the cosmos under Strife is the way in which the elements are moving – whether they are ‘coming together’ or ‘moving each one apart’, i.e. forming compounds or moving as individual ‘bits’ of element. If we feed this interpretation back into the text proposed for B35, we see once again the opposition between *φορέω* and *συνέρχομαι*. Furthermore, the fragment locates the specific moment at which the cosmos changes, namely when Strife manages to set Love itself into motion (in fact an element frequently held to be missing from the system).²⁰ Love’s movement is the reason that the elements begin recombining; hence the paradoxical use at B35.4 and **a(ii)19** of a verb for the action of Love which is, at B17.8 (*Physika* 1.240) and B26.6, typical for Strife. For Love moving in the middle of the whirl, it is further possible to

¹⁶ Mackenzie (2016).

¹⁷ Wright (1995) 349 gives these passages under the entry *φορεύειν*, mistaking the Ionic contraction *εο* > *εω* for an implausible athematic present middle participle.

¹⁸ The literature is conveniently given by Martin / Primavesi (1999) 54 n.1; see O’Brien (1969) 147-155.

¹⁹ Trépanier (2018) *passim*, but esp. 567-8.

²⁰ Full discussion in O’Brien (1969) 55-104.

compare B17.25 (*Physika* 1.256), where Love is ἐλίσσομένην ‘whirling’.²¹ The conjecture therefore makes excellent literary sense.

The only conclusion necessary from this article is that an anonymous Hellenistic or perhaps Imperial didactic poet had modelled part of his verse on Empedocles – in itself no great surprise. A bolder claim is a proposal for a restitution of Empedocles’ text, which improves the syntax and the sequence of thought in the fragments, on the basis of the later literary reminiscence. The anonymous author of *P.Oxy.* 5349 was a reader and close imitator of Empedocles; by chance, he has left us an indication of what he read in Empedocles’ text. Should the rest of his poem surface, there may be further insights to come.²²

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²¹ I owe this reference to Simon Trépanier (Edinburgh), who kindly read an earlier draft of this paper.

²² Another example of astronomical poetry from Oxyrhynchus is *P.Oxy.* XXX 2521 (see most recently Perale (2016); Perale (2020) no. 9); there are no obviously Empedoclean links, but line 7, [εὔρος ὁ]μοῦ μήκος τε, could be seen as a distant echo of Empedocles B17.20, as could an anonymous epigram from the Imperial period, *AP* 9.656. Another potential example of στροφάλιγγι in the papyrus record of this literature is *P. Oxy.* XV 1822 fr.2, col. i, 10; see Perale (2020) no. 7.

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